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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/735,401	12/12/2000	Eckhard Alt	IFD/046	4641

490 7590 02/03/2004

VIDAS, ARRETT & STEINKRAUS, P.A.  
6109 BLUE CIRCLE DRIVE  
SUITE 2000  
MINNETONKA, MN 55343-9185

EXAMINER

THALER, MICHAEL H

ART UNIT PAPER NUMBER

3731

DATE MAILED: 02/03/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/735,401

Applicant(s)

ALT, ECKHARD

Examiner

Michael Thaler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 61, 64, 65 and 68-85 is/are pending in the application.
- 4a) Of the above claim(s) 83 and 84 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 61, 64, 65, 68-82 and 85 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 22.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Dec. 8, 2003 has been entered.

Claims 83 and 84 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claims 61, 64, 65 and 68-82 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 61, line 7, there is no antecedent basis for "said struts". Also, in claim 61, line 7, "having a cross-section substantially of the shape of an erythrocyte" is indefinite since a cross-section, which has two dimensions, cannot have a shape of a structure which has three dimensions (such as an erythrocyte). For example, a cross section may have a shape of a square (which has two dimensions) but may not have of a cube (which has three dimensions). Claim 65 is indefinite for the same reason. As to claim 69, line 1,

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"further comprising a plurality of serpentine bands", is indefinite since the struts which form the serpentine bands have already been claimed in claim 61, resulting in a double recitation of the same element. Claim 76 is indefinite for the same reason.

Claims 61, 64, 65, 68-71, 76-78 are rejected under 35 U.S.C. 102(b) as being anticipated by Fontaine (5,370,683). Fontaine, in figures 10-12, shows a stent having a wall with a multiplicity of holes formed therethrough, the tubular wall defined by a plurality of struts. As to the phrase "having a cross-section substantially of the shape of an erythrocyte" (as best understood) in claim 61, line 7, an erythrocyte has a shape of a disk (or filled-in circle) when viewed from the appropriated direction. Fontaine shows the cross-section of the struts as circular (i.e. a filled-in circle), thus meeting this term as broadly claimed. As to claims 69 and 76, Fontaine discloses a plurality of serpentine bands (each of the windings of the helical coil), each of the bands being a continuous structure (since they are formed of a single piece of material) and a closed structure (Each winding forms a ring which is closed since it is attached to the adjacent winding. Each ring is closed in the same sense that a conventional key ring formed of a helical wire is closed). As to claims 71 and 78, Fontaine

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shows a connector (one of the intermediate windings of the helical coil).

Claims 72, 73, 79, 80 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fontaine (5,370,683) in view of Sawyer (5,108,417). Fontaine fails to disclose the claimed taper. However, Sawyer teaches that a stent should have a taper (figure 3) in order to increase the velocity of the blood and thus reduce the possibility of thrombosis (col. 4, lines 26-54). It would have been obvious to include a taper in the Fontaine stent so that it too would have this advantage. As to claim 85, the Sawyer stent tapers from the midpoint to one end of the stent at a substantially constant slope in relation to the longitudinal axis.

Claims 74, 75, 81 and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fontaine (5,370,683) in view of Marin et al. (5,397,355). Fontaine fails to disclose the claimed taper. However, it is well known in this art to provide a taper the exterior surface of stents. For example, Marin et al. teach that the outer diameter of a stent should have a taper (at 18) in order to anchor the stent within the blood vessel and also facilitate smooth passage within a blood vessel when barbs 18 are unexpanded. It would have been obvious to include a

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taper in the Fontaine stent (i.e. barbs which form a taper in the stent) so that it too would have this advantage.

Applicant's arguments filed Dec. 8, 2003 have been fully considered but they are not persuasive for the reasons set forth above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Thaler whose telephone number is (703) 308-2981. The examiner can normally be reached Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Milano can be reached on (703)308-2496. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0858.

mht  
1/30/04



MICHAEL THALER  
PRIMARY EXAMINER  
ART UNIT 3731